

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
28 April 2005 (28.04.2005)

PCT

(10) International Publication Number  
**WO 2005/037958 A1**

(51) International Patent Classification<sup>7</sup>: C10G 11/18

(21) International Application Number:  
PCT/US2004/032223

(22) International Filing Date: 1 October 2004 (01.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/510,201 10 October 2003 (10.10.2003) US  
60/604,661 25 August 2004 (25.08.2004) US

(71) Applicant (*for all designated States except US*): EXXONMOBIL RESEARCH AND ENGINEERING COMPANY [US/US]; 1545 Route 22 East, P.O. Box 900, Annandale, NJ 08801-0900 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): VARADARAJ, Ramesh [US/US]; 18 Aberdeen Circle, Flemington, NJ 08822 (US). SWAN, George, A., III [US/US]; 18437 Wildlife Way, Baton Rouge, LA 70817 (US). DEARTH, James, D. [US/US]; 4500 Sherwood Common Blvd., #1008, Baton Rouge, LA 70816 (US). GOLDSTEIN, Stuart, S. [US/US]; 4233 Sleepy Lake Drive, Fairfax, VA 22033 (US). ADAMSON, W., Russell [US/US]; 6033 Pine Hollow Court, Baton Rouge, LA 70817 (US).

(74) Agents: HUGUES, Gerard, J. et al.; Exxonmobil Research and Engineering Company, 1545 Route 22 East, P.O. Box 900, Annandale, NJ 08801-0900 (US).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/037958 A1

(54) Title: SURFACTANT ENHANCED FLUID CATALYTIC CRACKING PROCESS

(57) Abstract: The atomization of a fluid injected into an atomization zone is enhanced by providing the fluid with an effective amount of an additive capable of reducing the static and dynamic interfacial tension of the fluid components.